Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of encoding data, comprising the acts of:

recoverably embedding supplemental data by inserting the supplemental data into encoded data using at least one parameter which is altered in order to embed the supplemental data;

deriving the at least one parameter from the data prior to encoding; and

encoding the data, the recoverably embedded supplemental data, and the altered at least one parameter, wherein the data is encoded using an algorithm that is determined by the altered at least one parameter, and wherein the recoverably embedded supplemental data is configured to be detected regardless of whether the remaining encoded data is decoded.

2. (Currently amended) A method of extracting supplemental data

of encoded data as ~~defined~~ claimed in Claim 1.

3.   (Currently amended) A   method   of   encoding   input   data,
comprising the acts of:

partitioning the data into frames;

determining a set of parameters for each frame;

reducing the data rate of the input signal by applying an
algorithm determined by an affected parameter set whereby encoded
data includes one of the set of parameters and at least data which
can be used to derive the set of parameters, the data rate-reduced
signal, and recoverably embedded supplemental data, wherein the set
of parameters is affected by the supplemental data, and wherein the
recoverably embedded supplemental data is configured to be detected
regardless of whether the remaining encoded data is decoded.

4.   (Currently amended) A method of extracting information which
is embedded in the parameter set of an encoded signal as ~~defined~~
claimed in Claim 3.

5-24.   (Cancelled)

25. (Currently amended) A method of encoding supplemental data of encoded data as ~~defined~~ claimed in Claim 1, wherein lossless encoding is used to encode the supplemental data.

26. (Currently amended) A method of encoding supplemental data of encoded data as ~~defined~~ claimed in Claim 1, wherein the supplemental data is encoded bit by bit.

27. (Currently amended) A method of encoding supplemental data of encoded data as ~~defined~~ claimed in Claim 1, wherein before the embedding, partitioning of the data into frames and determining a set of parameters for each frame, wherein the set of parameters can be altered to embed the supplemental data.

28. (Currently amended) A method of encoding supplemental data of encoded data as ~~defined~~ claimed in Claim 27, wherein encoded data is used to derive the set of parameters.

29. (Currently amended) A method of encoding supplemental data of

encoded data as ~~defined~~ claimed in Claim 1, wherein the parameters

~~is~~ are altered to a dedicated value in response to the supplemental

data to be embedded.

30.   (Currently amended) A method of encoding data, comprising the

acts of:

     analyzing data to determine a parameter;

     altering the parameter utilizing supplemental data; and

     encoding the data, the supplemental data and the altered

parameter to derive the encoded data, wherein the encoded data is

encoded by an algorithm determined by the altered parameter, ~~and~~

wherein the supplemental data is recoverable from the encoded data,

and wherein the supplemental data is configured to be detected

regardless of whether the remaining encoded data is decoded.

31.   (New)   An encoder comprising:

     a portion configured to recoverably embed supplemental data by

inserting the supplemental data into encoded data using at least

one parameter which is altered in order to embed the supplemental

data;

a portion configured to derive the at least one parameter from the data prior to encoding; and

a portion configured to encode the data, the recoverably embedded supplemental data, and the altered at least one parameter, wherein the data is encoded using an algorithm that is determined by the altered at least one parameter, and wherein the recoverably embedded supplemental data is configured to be detected regardless of whether the remaining encoded data is decoded.

32. (New)   A decoder configured to extract information which is embedded in the at least one parameter of a signal encoded by the encoder as claimed in Claim 31.

33. (New)   An encoder comprising:

a portion configured to partition data into frames;

a portion configured to determine a set of parameters for each frame;

a portion configured to reduce the data rate of the input signal by applying an algorithm determined by an affected parameter set whereby encoded data includes one of the set of parameters and

at least data which can be used to derive the set of parameters, the data rate-reduced signal, and recoverably embedded supplemental data, wherein the set of parameters is affected by the supplemental data, and wherein the recoverably embedded supplemental data is configured to be detected regardless of whether the remaining encoded data is decoded.

34. (New)   A decoder configured to extract information which is embedded in the set of parameters of a signal encoded by the encoder as claimed in Claim 33.

35. (New)   A playback device comprising the decoder as claimed in Claim 32.

36. (New)   A playback device comprising the decoder as claimed in Claim 34.

37. (New)   A playback device comprising the encoder as claimed in Claim 31.

38. (New)   The playback device of Claim 37, comprising a disc player for at least one of audio and audio-visual media.

39. (New)   The playback device of Claim 35, comprising a disc player for at least one of audio and audio-visual media.

40. (New)   A playback device comprising the encoder as claimed in Claim 33, the playback device comprising a Disc player configured to play at least one of audio and audio-visual media.

41. (New)   The playback device of Claim 36, comprising a Disc player for audio and audio-visual media.